INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Docket Number: ART-00105.P.1.1-US	Application Number: 09/973,629
Applicant: Cheng et al.	
Filing Date: October 9, 2001	Group Art Unit: 1641

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
	P1	4,160,645	7/10/79	Ullman			
	P2	4,275,149	6/23/81	Litman et al.			
	P3	4,318,980	3/9/82	Boguslaski et al.			
	P4	4,326,934	4/27/82	Pohl			
	P5	4,390,403	6/28/83	Batchelder			
	P6	4,728,500	3/1/88	Higo			
	P7	4,894,443	1/16/90	Greenfield et al.			
	P8	5,344,535	9/6/94	Betts et al.			
	P9	5,454,472	10/3/95	Benecke et al.			
	P10	5,569,367	10/29/96	Betts et al.			
	P11	5,605,662	2/25/97	Heller et al.			
	P12	5,612,474	3/18/97	Patel			
	P13	5,632,957	05/27/97	Heller et al.			
	P14	5,653,859	8/5/97	Parton et al.			
	P15	5,883,760	3/16/99	Yamada et al.			
	P16	5,888,370	3/30/99	Becker et al.			
	P17	5,993,630	11/30/99	Becker et al.			

Examiner Signature		Date Considered	

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
	P18	5,993,631	11/30/99	Parton et al.			
	P19	5,993,632	11/30/99	Becker et al.			
	P20	6,029,518	2/29/00	Oeftering			
	P21	6,051,380	04/1/00	Sosnowski et al.			
	P22	6,071,394	6/6/00	Cheng et al.			
	P23	6,280,590	8/28/01	Cheng et al.			
	P24	6,355,491	3/12/02	Zhou et al.			
	P25	6,368,871	4/9/02	Christel et al.			
	P26	6,374,684	4/23/02	Dority			
	P27	2001/0012612	8/09/01	Petersen et al.			
	P28	2002/0025576	2/28/02	Northrup et al.			
	P29	2002/0039783	4/4/02	McMillan et al.			

FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	Translation	
							YES	NO
	F1	WO 99/38612						
	F2	WO 02/12896						
	F3	WO 02/16647						
	F4	WO O2/27909						
	F5	WO 02/28523						
	F6	WO 02/30562						
	F7	WO 02/31505						
	F8	WO 02/31506						

Examiner Signature		Date Considered	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
	D1	Ahn *et al.*, A New Toroidal-Meander Type Integrated Inductor With a Multilevel Meander Magnetic Core, *IEEE Trans. Magnetics* 30:73-79 (1994).
	D2	Ahn *et al.*, A Fully Integrated Micromachined Magnetic Particle Separator, *J. Microelectromechanical Systems* 5:151-158 (1996).
	D3	Batra *et al.*, Insertion of Constant Region Domains of Human IgG_1 into CD4-PE40 Increases its Plasma Half-life, *Mol. Immunology* 30:379-386 (1993).
	D4	Becker *et al.*, The removal of human leukaemia cells from blood using interdigitated microelectrodes, *J. Phys. D: Appl. Phys.* 27:2659-2662 (1994).
	D5	Becker *et al.*, Separation of human breast cancer cells from blood by deferential dielectric affinity, *Proc. Natl. Acad. Sci.* USA 92:860-864 (1995).
	D6	Burt *et al.*, An optical dielectrophoresis spectrometer for low-frequency measurements on colloidal suspensions, *J. Phys. E: Sci. Instrum.*, 22:952-957 (1989).
	D7	Cheng *et al.*, Preparation and hybridization analysis of DNA/RNA from *E. coli* on microfabricated bioelectronic chips, *Nat. Biotech.* 16:541-546 (1998).
	D8	Cumber *et al.*, Structural Features of the Antibody-A Chain Linkage that Influence Activity and Stability of Ricin A Chain Immunotoxins, *Bioconjugate Chem.* 3:397-401 (1992).
	D9	De Gasperis *et al.*, Microfluidic Cell Separation by 2-dimensional Dielectrophoresis, *Biomedical Microdevices* 2:41-49 (1999).
	D10	Edman *et al.*, Electric field directed nucleic acid hybridization on microchips, *Nucleic Acids Res.*, 25:4907-4914 (1997).
	D11	Effenhauser, C.S. *et al.*, High-speed separation of antisense oligonucleotides on a micromachined capillary electrophoresis device, *Anal. Chem.* 66: 2949-2953 (1994).
	D12	Fiedler *et al.*, Dielectrophoretic Sorting of Particles and Cells in a Microsystem, *Anal. Chem.* 70:1909-1915 (1998).
	D13	Fiedler *et al.*, Electrocasting - formation and structuring of suspended microbodies using a.c. generated field cages, *Microsystem Technologies* 2:1-7 (1995).

Examiner Signature		Date Considered	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
	D14	Fuhr *et al.*, Levitation, holding, and rotation of cells within traps made by high-frequency fields, *Biochim. Biophys. Acta* 1108: 215-223 (1992).
	D15	Fuhr *et al.*, Particle micromanipulator consisting of two orthogonal channels with travelling-wave electrode structures, *Sensors and Actuators A*. 41-42: 230-239 (1994).
	D16	Fuhr *et al.*, Dielectrophoretic field cages: technique for cell, virus and macromolecule handling, *Cellular Engineering* 1: 47-57 (1995).
	D17	Fuhr *et al.*, Positioning and Manipulation of Cells and Microparticles Using Miniaturized Electric Field Traps and Travelling Waves, *Sensors and Materials* 7:131-146 (1995).
	D18	Gascoyne *et al.*, Dielectrophoretic Separation of Cancer Cells from Blood, *IEEE Transactions on Ind. Appl.* 33:670-678 (1997).
	D19	Green and Morgan, Dielectrophoretic Separation of nano-particles, *J. Phys. D: Appl. Phys*. 30:L41-L44 (1997).
	D20	Hagedorn *et al.*, Traveling-wave dielectrophoresis of microparticles, *Electrophoresis* 13:49-54 (1992).
	D21	Hagedorn *et al.*, Design of asynchronous dielectric micromotors, *J. Electrostatics*, 33:159-185 (1994).
	D22	Harrison, D.J. *et al.*, Micromachining a Miniaturized Capillary Electrophoresis-Based Chemical Analysis System on a Chip, *Science*, 261:895-897 (1993).
	D23	Hawkes *et al.*, A dielectrophoretic spectrometer for characterising micro-organisms and other particles, *Microbios.* 73:81-86 (1993).
	D24	Huang and Pethig, Electrode design for negative dielectrophoresis, *Meas. Sci. Technol.*, 2:1142-1146 (1991).
	D25	Huang *et al.*, Differences in the AC electrodynamics of viable and non-viable yeast cells determined through combined dielectrophoresis and electrorotation studies, *Phys. Med. Biol.* 37: 1499-1517 (1992).
	D26	Huang *et al.*, Electrokinetic behaviour of colloidal particles in travelling electric fields: studies using yeast cells, *J. Phys. D: Appl. Phys.*, 26: 1528-1535 (1993).
	D27	Huang *et al.*, Electrorotational studies of the cytoplasmic dielectric properties of Friend murine erythroleukaemia cells, *Phys. Med. Biol.* 40: 1789-1806 (1995).

Examiner Signature		Date Considered	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
	D28	Huang *et al.*, Membrane changes associated with the temperature-sensitive P85$^{src-mos}$ - dependent transformation of rat kidney cells as determined by dielectrophoresis and electrorotation, *Biochim. Biophys. Acta* 1282:76-84 (1996)
	D29	Huang *et al.*, Introducing Dielectrophoresis as a New Force Field for Field-Flow Fractionation, *Biophys. J.* 73:1118-1129 (1997).
	D30	Huang *et al.*, Membrane dielectric responses of human T-lymphocytes following mitogenic stimulation, *Biochim. Biophys. Acta* 1417:51-62 (1999).
	D31	Hughes *et al.*, Manipulation of herpes simplex virus type 1 by dielectrophoresis, *Biochim. Biophys. Acta*, 1425:119-126 (1998).
	D32	Huston *et al.*, Protein engineering of antibody binding sites: Recovery of specific activity in an anti-digoxin single-chain Fv analogue produced in *Escherichia coli*, *Proc. Natl. Acad. Sci.* USA, 85:5879-5883 (1988).
	D33	Kronick, P. L., Magnetic Microspheres in Cell Separation, *Methods of Cell Separation*, 3: 115-139 (1980).
	D34	Ladurner *et al.*, Glutamine, Alanine or Glycine Repeats Inserted in the Loop of a Protein Have Minimal Effects on Stability and Folding Rates, *J. Mol. Biol.* 273:330-337 (1997).
	D35	Liakopoulos *et al.*, A Bio-Magnetic Bead Seperator On Glass Chips Using Semi-encapsulated Spiral Electromagnets, *Transducers* 97: 485-488 (1997).
	D36	Lichtenberg *et al.*, Micro Total analysis Systems 2000, edited by A. Van Den Berg et al., 307-310.
	D37	Markx *et al.*,Dielectrophoretic characterization and separation of micro-organisms, *Microbiology* 140:585-591 (1994).
	D38	Morgan, *et al.*, Large-area travelling-wave dielectrophoresis particle separator, *J. Micromech. Microeng.* 7:65-70 (1997).
	D39	Morgan *et al.*, Separation of Submicron Bioparticles by Dielectrophoresis, *Biophys. J.* 77:516-525 (1999).
	D40	Muller *et al.*, A 3-D microelectrode system for handling and caging single cells and particles, *Biosensors and Bioelectronics* 14:247-256 (1999).

Examiner Signature		Date Considered	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
EXAMINER INITIALS		CITATION
	D41	Newton *et al.*, Angiogenin Single-Chain Immunofusions: Influence of Peptide Linkers and Spacers between Fusion Protein Domains, *Biochemistry* 35:545-553 (1996)
	D42	Price *et al.*, Applications of a new optical technique for measuring the dielectrophoretic behaviour of micro-organisms, *Bioichim. Biophys Acta* 954:221-230 (1988).
	D43	Schnelle *et al.*, Three-dimensional electric field traps for manipulation of cells - calculation and experimental verification, *Biochim. Biophys. Acta* 1157:127-140 (1993).
	D44	Stephens *et al.*, The dielectrophoresis enrichment of CD34+ cells from peripheral blood stem cell harvests, *Bone Marrow Transplantation* 18:777-782 (1996).
	D45	Wang *et al.*, Selective dielectrophoretic confinement of bioparticles in potential energy wells, *J. Phys. D: Appl. Phys.* 26:1278-1285 (1993).
	D46	Wang *et al.*, Non-uniform spatial distributions of both the magnitude and phase of AC electric fields determine dielectrophoretic forces, *Biochim. Biophys. Acta.* 1243:185-194 (1995).
	D47	Wang *et al.*, Dielectrophoretic Manipulation of Particles, *IEEE Transactions on Industry Appl.* 33:660-669 (1997).
	D48	Wang *et al.*, Dielectrophoretic Manipulation of Cells with Spiral Electrodes, *Biophys. J.*, 72:1887-1899 (1997).
	D49	Wang *et al.*, Separation of Polystyrene Microbeads Using Dielectrophoretic/Gravitational Field-Flow-Fractionation, *Biophys. J.* 74:2689-2701 (1998).
	D50	Washizu *et al.*, Handling Biological Cells Using a Fluid Integrated Circuit, *IEEE Transactions on Industry Appl.* 26:352-358 (1990).
	D51	Washizu *et al.*, Molecular Dielectrophoresis of Biopolymers, *IEEE Transactions on Industry Appl.* 30:835-843 (1994).
	D52	Whitlow et al., An improved linker for single-chain Fv with reduced aggregation and enhanced proteolytic stability, *Protein Engineering* 6:989-995 (1993).
	D53	Xie *et al.*, Microchip-Based Capillary Electrophoresis Systems, *Meth. in Mol. Biol.* 162: 67-83.
	D54	Yang *et al.*, Cell Separation on Microfabricated Electrodes Using Dielectrophoretic/Gravitational Field-Flow Fractionation, *Anal. Chem.* 71:911-918 (1999).

Examiner Signature		Date Considered	